Focus

Investment: the enduring tyranny of 'animal spirits'

- *Weak investment has been a prime consideration behind a lacklustre global recovery.*
- *This can be traced in part to weak aggregate demand and sporadic credit constraints.*
- *There also appears to be evidence of a deeper malaise, however.*
- *Consistent with Keynes' analytical framework, animal spirits seem to be depressed.*
- *The world is beset by many, often unfamiliar, uncertainties, stretching far into the future.*
- *The contrast with the golden age of post-war growth of the 1950s and 1960s is stark.*

An uninspiring recovery

The current recovery has consistently underwhelmed …

Now increasingly mature, the latest cyclical upswing experienced by the advanced economies has remained hesitant and uneven by historical standards. Hence, the persistent deceleration of real GDP growth witnessed since the 1970s has continued (Figure 1).

An important constraint on the recovery has been the lacklustre tenor of business investment. Not only did business investment collapse in the wake of the Global Financial Crisis, but the trajectory of the subsequent rebound has also frequently proved shallower than expected, especially in real terms. The expansion rate of investment and the investment intensity of growth have run below their pre-crisis trends, and the average age of the capital stock has tended to increase (Figure 2).[1] Nowhere is this more obvious than in post-EU referendum Britain.

… with sluggish investment a primary consideration

In seeking to explain the shortfall in business investment, a useful starting point is the economics of John Maynard Keynes, and in particular his exploration of the importance of confidence, uncertainty, and what he described as the 'animal spirits' of the corporate sector.

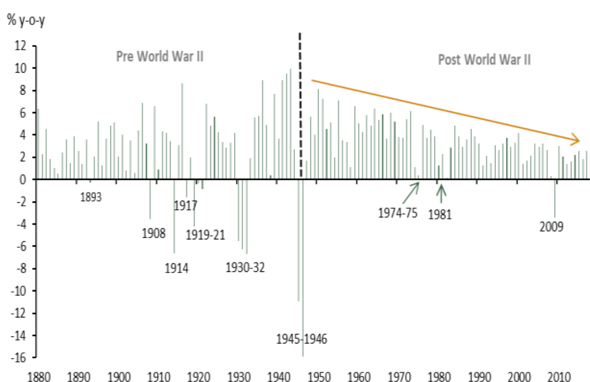
The master's voice

Keynes' analysis of investment emphasised confidence …

In his 1936 *magnum opus*, "The General Theory of Employment, Interest, and Money",[2] Keynes made a number of astute assertions about investment behaviour, including the following:

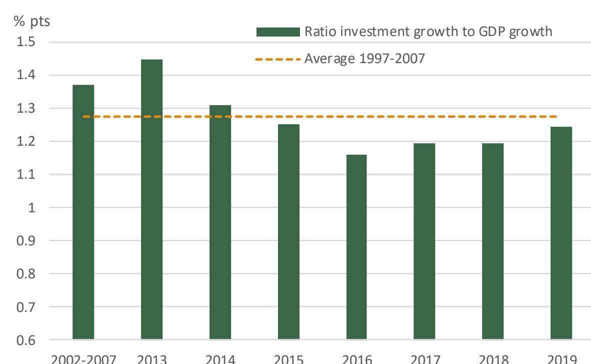
1. If the desire to save exceeds the desire to invest, then the adjustment path comes via a change in aggregate income and output. The savings excess at the initial equilibrium level of income will be eliminated by a decline in income, leading to a new equilibrium of sub-potential output and employment.
2. Investment is determined by the expected rate of return – what Keynes called the marginal efficiency of capital (MEC) – relative to the terms on which finance is provided for it, which is governed in significant part by the market rate of interest.
3. Investment will be encouraged to the level where the MEC equals the market rate of interest. If the interest rate is 2%, no one will invest £100 unless the investment is expected to contribute an additional £2 to annual output, allowing for any associated costs and depreciation.

Figure 1: Long-term G-7 real GDP growth



Source: Angus Maddison database, IMF WEO database, and OECD Economic Outlook Dataset

Figure 2: Global investment intensity



Source: OECD and Llewellyn Consulting

4. The willingness to lend is influenced by a lender's perceived risk of default. The willingness to borrow is influenced by a borrower's confidence that the hoped-for prospective yield can be earned. Changes in these perceptions will alter both the supply of finance, and the demand for it.

5. Variations in an investor's confidence are by far the most important factor in explaining investment fluctuations. It is through the MEC that the expectation of the future influences the present, and it is the dependence of the MEC on changes in risk appetite, or confidence, that render it subject to major fluctuations.[3]

… and uncertainty …

6. Confidence is the inverse of uncertainty. Uncertainty is very different from quantifiable probability, and *in extremis* can swell to radical proportions. An economy is not as predictable as the natural world. New fears and hopes can emerge suddenly and without warning, and dominate thinking for extended periods.

7. In the face of acute uncertainty, it is rational to fall back on norms, conventions, and rules of thumb in determining how to act. This can involve extrapolating the present into the far future.

… and the overwhelming role of 'animal spirits'

8. The suggestion is that because of uncertainty and depressed confidence, or animal spirits, the expected profit rate can fall to such a level that the volume of private investment is less than what the public would save at full employment.

9. The shortfall can be large and enduring. In such circumstances, and especially if the zero bound is an active constraint on monetary policy, it may be that interest rates cannot fall far enough to play a sufficient equilibrating role.

10. Hence, to revive profit expectations and move the economy back to full employment will require the government to intervene via fiscal policy.

Derived demand and bank reticence

So, how well does Keynes' schema fit the facts?

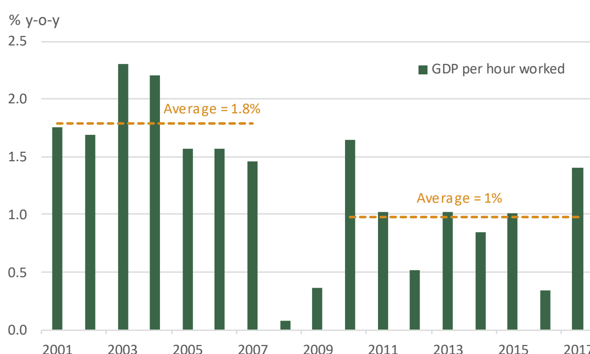
The latest cycle is typified by weak aggregate demand …

A detailed look at the progress of OECD business investment over the past decade suggests that its sluggishness can be traced in significant part to a shortfall of aggregate demand. Aggregate demand is the most important driver of immediate profit expectations and the short-term dynamics of business investment. Moreover, GDP and investment are intricately linked via the feedback loop of the 'multiplier-accelerator interaction'. GDP growth brings forth investment, which in turn bolsters GDP, which stimulates investment, and so on. Slow GDP growth has resulted in slow investment spending growth.

… and occasional credit constraints …

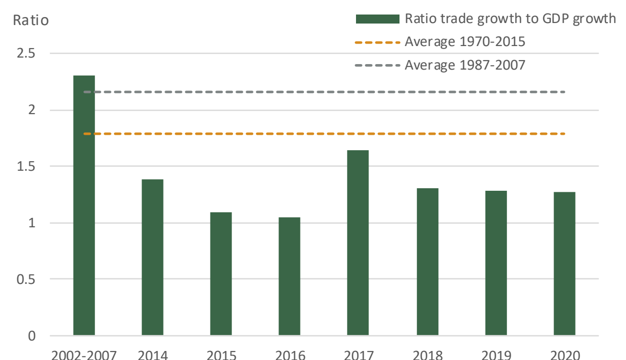
It would also appear that during the depths of the GFC, and for a period between 2011 and 2013 when sovereign risk concerns were at their peak in Europe, and notwithstanding that interest rates had been slashed to historical lows, commercial banks became extremely risk-averse because of

Figure 3: OECD productivity growth



Source: Macrobond and Llewellyn Consulting

Figure 4: Global trade intensity



Source: OECD and Llewellyn Consulting
Note: World trade volumes for goods plus services; global GDP at constant prices and market exchange rates.

the weakness of their balance sheets. Credit conditions therefore tightened significantly. Less credit was available at a given interest rate. This also acted to depress investment spending.

A towering wall of worry

… but also huge longer-term ambiguities

Over the longer run, however, structural factors including demography, institutional architecture, and underlying productivity potential come more into play in determining investment spending and an economy's performance. And it is here that there is evidence of the sort of uncertainties and concerns that Keynes suggested could undermine confidence in the future, and animal spirits.

There are, in short, indications of a deeper malaise. Consider:

1. Life expectancies are rising and population structures ageing across the advanced economies, and also now in much of the developing world. Japan is at the leading edge of this trend. By 2060, the population of those 65 and older is expected to rise by 18%, and the total population to have fallen by a third. This is unprecedented. The prospective pace of demographic change is less dramatic elsewhere in the OECD economies, but the trend is similar, especially in Europe, and in Italy in particular. This bound to depress growth potential, but by quite how much is unclear.

These range from unprecedented demographic forces …

2. As populations decline, to sustain growth potential requires that the workforce work harder and become more productive. Advanced-economy participation rates are generally well down on their levels of 30 years ago, although they have latterly begun to edge back up in a number of economies, not least Japan, where female engagement has risen sharply. Meanwhile, OECD labour productivity growth has generally run at less than half the pre-crisis average of 1¾% per year, and for reasons that the economics profession has not been able to explain in full (Figure 3). This is particularly the case given recent technological advances.

… to the potential for technological disruption …

3. The consensus view is that in due course the positive influence of technology will become more manifest and encourage productivity growth to rebound, albeit at the cost of considerable disruption to many tasks, jobs, professions, and sectors – another source of angst. So far, however, such hopes have not been realised. Until there is greater clarity on these issues, many investment decisions seem likely to be held back.
4. Increased inequality, and in particular the rising number of super-rich, is also regularly cited as a source of slower growth potential. The wealthy, of course, tend to have a lower propensity to consume than do the poor.
5. There is also evidence of greater concentration in certain industries, not least the tech sector, and the fear is that this tendency towards oligopoly, if not monopoly, will stifle the competitive forces that are a powerful catalyst for innovation and investment.
6. The geopolitical environment is a further font of unease and uncertainty. The rise of populism and erosion of liberal democracy has resulted in increased nationalism, bilateralism, and protectionism. Trade and international capital flows, two other powerful drivers of competition, innovation, and investment, and the post-war institutions set up to police them, have suffered commensurately. Supply chains have shrunk, and the trade intensity of global growth – the ratio of world trade growth to GDP growth – has latterly lagged almost a full percentage point below its 1987-2017 average (Figure 4).

… the rise of populism …

7. Populism is in addition associated with a disregard of proven evidence, and is a breeding ground for arbitrary favouritism towards some groups at the expense of others, militarist adventures, and constraints on freedoms, including the migration flows that can help to offset population ageing. In general, populism is a recipe for poor governance, bad policy decisions, the weakening of market forces, less fairness, and greater societal unrest, all of which stand to add to uncertainty and caution, and lower investment and growth.

… and climate change

8. Finally, climate change is increasingly impinging on corporate visons of the future. The world has almost certainly missed the opportunity to limit the prospective temperature increase to 2 degrees Celsius. Moreover, in the absence of sufficient international cooperation and coordination, the risk is that it passes up the opportunity to limit temperature rise to 3-4 degrees. While climate change of this magnitude will itself necessitate investment, it also stands to be extremely disruptive on any number of levels, resulting in greatly increased costs to business, swathes of stranded assets, forced migration of people and production facilities,

large changes in the regulatory environment, and huge shifts in regional and the global balance of economic power.

Hyperbolics?

No doubt some, and especially those gripped by the obvious success of certain contemporary sectors, will view Keynes' analytical framework as outmoded and misplaced, and this list of future ambiguities, threats, and concerns as exaggerated. There will also be some who see the apparent weakness of investment as in part down to poor data, and in particular the failure adequately to capture outlays on intangibles. But before dismissing Keynes and this catalogue of anxieties and their potential influence on confidence, investment, and growth as overblown, it is worth comparing the *status quo* with the *status quo ante* – and in particular the environment of the 1950s and 1960s, the golden era of expansion for the advanced economies.

Keynes seems to have a point

At that time, much of Europe and Japan were reconstructing their devastated economies. Japan is estimated to have lost 6% of its population, 25% of its national wealth, and 34% of its fixed industrial assets in the war. Germany lost an estimated 9% of its population and 17% of its industrial assets.[4]

The 20-year period that followed World War II was marked by a wave of optimism – a wave that contrasted so sharply with the preceding years that had seen deep depression and often painful and incomplete recovery, six years of total war and, for many, an extended period of authoritarianism, if not tyranny. In the second half of the 1940s, much of the global population had been set free from extended purgatory.

Moreover, global population growth was rapid, running at its peak at more than 2% per year, an historical high, as against a figure close to 1% today. With this came an unprecedented period of urbanisation, and all the investment demands that that implied.

Furthermore the global trading system, after its collapse in the wake of the Great Depression, was opening up and becoming more integrated under the auspices of GATT and the other liberal, multilateral, institutions established in the 1940s. Global export volumes increased more than five-fold between 1950 and 1970.

The contrast with the golden age of the 50s and 60s is stark

There were huge opportunities for technological catch up with a dominant, but generally paternalistic, US. In 1950, for example, UK and west German productivity was less than two thirds that of the US. Japanese productivity was a mere 16% of that of the US.[5]

After the Korean War, commodity prices, and especially oil prices, were relatively stable.

There were also few concerns about environmental issues.

In this context, there was even a growing belief that the fundamental economic problems of maintaining full employment, and securing rapid and sustained economic growth had essentially been solved. It is no wonder that animal spirits soared, and business investment took off.[6]

Today's world is very different, less secure, and less familiar.

It ain't necessarily so

The world does not necessarily have to be like it is today. Its prospects do not have to be slow growth in perpetuity. And nor are depression or war necessarily the only routes out. Just as animal spirits can be damaged, so can they also be nurtured.

While a change of policy is not in sight at the moment, the longer the present situation continues, the more likely is a response. We shall write about that option shortly.

Watch fors

- Investment and real GDP growth remaining depressed relative to pre-crisis trends.
- Global interest rates remaining historically low.
- The progress of structural reform programmes.
- Greater efforts to address income and wealth inequality, and industrial concentration.
- Technological progress and diffusion finally begins show up in the productivity figures.
- Growing political and policy pressures to 'do something' about growth outside the US.■

[1] The successive OECD. Economic Outlooks for the years 2017-2019 contain chapter and verse on the weakness of the current investment cycle.
[2] Keynes. J.M., 1936. *The general theory of employment, interest, and money.* MacMillan. Chapter 12 in particular. Also useful is Keynes. J.M., 1937. *The general theory of employment.* February. Quarterly Journal of Economics. Volume 51, number 2. Link
[3] Put another way, rather than movements along the MEC schedule, it is movements of the curve itself that are most important in determining investment.
[4] Harrison. M., 1998. *The economics of World War II: an overview.* University of Warwick. Link
[5] Broadberry. S., 2005. *Britain's twentieth century productivity performance in international perspective.* University of Warwick. Link
[6] For interesting view on this point, see Matthews. R., 1968. *Why has Britain had full employment since the war?* Economic Journal. September 1968.Link

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